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The National Youth Populations of Asia: Long- Term Change in Six Countries

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Peter Xenos is a Senior Fellow with the East-West Center's Research Program, Population and Health Studies. In response to increasing concern about adolescent risk-taking behavior in Asia, the East-West Center is coordinating a project to analyze and compare results from youth surveys in Hong Kong, Indonesia, Nepal, the Philippines, Taiwan, and Thailand. Initiated in 1998, the Asian Young Adult Reproductive Risk project is supported by the United States Agency for International Development.

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AYARR

Asian Young Adult Reproductive Risk Project

This research is a product of the East-West Center's Asian Young Adult Reproductive Risk (AYARR) project, supported by USAID through its MEASURE Evaluation Project. The AYARR project supports a research network devoted to producing an Asian regional perspective on young adult risk behaviors through secondary and cross-national comparative investigation of large-scale, household-based surveys of youth.

The project presently involves investigators and national surveys in six Asian countries. The government of **Hong Kong** (now the Hong Kong Special Administrative Region) has supported area-wide youth surveys, both household-based and in-school, in 1981, 1986, 1991, and 1996. The 1994 **Philippines'** Young Adult Fertility and Sexuality Survey (YAFS-II) was conducted by the Population Institute, University of the Philippines, with support from the UNFPA. **Thailand's** 1994 Family and Youth Survey (FAYS) was carried out by the Institute for Population and Social Research at Mahidol University, with support from the UNFPA. In **Indonesia**, the 1998 Reproduksi Remaja Sejahtera (RRS) baseline survey was funded by the World Bank and by USAID through Pathfinder International's FOCUS on Young Adults program. The RRS was carried out by the Lembaga Demografi at the University of Indonesia under the supervision of the National Family Planning Coordinating Board (BKKBN). The **Nepal** Adolescent and Young Adult (NAYA) project, which includes the 2000 NAYA youth survey, is being carried out by Family Health International and the Valley Research Group (VaRG) with support from USAID to Family Health International (FHI). The **Taiwan** Young Person Survey (TYPF) of 1994 was carried out by the Taiwan Provincial Institute of Family Planning (now the Bureau for Health Promotion, Department of Health, Taiwan) with support from the government of Taiwan.

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Overview

The Asian Young Adult Reproductive Risk (AYARR) project seeks to make meaningful comparisons among Asian youth populations.¹ Such comparisons are intrinsically interesting but also inherently difficult, in both respects due to the great variations that exist across Asian societies. The six countries under study—Hong Kong, Indonesia, Nepal, the Philippines, Taiwan and Thailand—provide some marked contrasts in cultural traditions and social forms. They are also quite diverse in terms of the social composition of their youth populations. This analysis examines how these contemporary variations in social composition reflect basic facts about national histories of long-term social and economic change among youth. The youth age group typically bears the brunt of on-going change and often reflects this in large quanta of change over relatively short periods of time. In any contemporaneous, cross-national comparisons that are made the main contours of these historical changes and differences must be taken into account, with attention both to common features and national idiosyncrasies.

In order to distinguish the long and short term, the general from the country-specific, it is necessary to examine an array of comparably defined and uniformly presented time series of social statistics for youth. Such a comparative perspective on social and economic changes among Asian youth is provided by a research project completed recently by the author.² Some of the basic indicator series developed in that project are presented here. Xenos and Kabamalan (1998b) provides an overview of the main results. A detailed report, including an exposition of the estimation methodology, is found in Xenos and Kabamalan (1998a). Results are provided there for nearly all Asian countries. In Tables 2–6 and Charts 1–8 of this paper important trends are summarized for the six countries involved in the AYARR project—as well as for the Asian sub-regions and Asia as a whole. The results shown here mainly cover the period 1950–1990, but the original research includes projections of these series through 2025. Those projection results are sometimes cited here as well.

The phrase “social demography of youth” is used here to encompass all the compositional changes that bear so heavily on the youth age group, but it refers in particular to three compositional features which can be measured over a long time frame for many countries: these are percents single, percents enrolled in school, and percents in the labor force. Other indicators of social change are derived from these basic indicators. Percents single were calculated from national census reports (c.f. Xenos and Gultiano 1992). Labor force participation rates were taken from ILO published compilations (ILO 1977, 1986–1990). School enrollment rates were estimated from UNESCO net enrollment ratios (UNESCO 1977, 1983, 1993) using a regression procedure relating enrollment rates and net enrollment ratios whenever both are available. Since the census dates vary across countries, estimates for a consistent set of dates were created by interpolation. The appendix below provides

¹ For more information see the project web site (URL:<http://pisun2.ewc.hawaii.edu/ayarr/>).

² Long-Term Transformations of Youth in Asia (Population Council, Contract No. CI97.63A).

more detail on the methods employed, and a full exposition of methodology can be found in Xenos and Kabamalan (1998a: Volume I, pp 10–15).

It will be demonstrated shortly that recent changes in the social demography of youth have been considerable. When we conduct an analysis that combines this changing social demography of youth with systematic changes in youth numbers and proportions, we bring into focus a distinct late-twentieth century historical conjuncture notable enough to merit a name—the “youth transition.” This phrase highlights the fact that the main features are historically well-defined, one time, irreversible changes. A key element is demographic, consisting of an often substantial but always temporary rise in the growth rate of the youth population, accompanied by a rising youth share of the total population. This oft-noted demographic “youth bulge” has occurred throughout much of Asia in the second half of the twentieth century, driven by the timing of demographic transition with its basic and apparently irreversible changes in fertility and mortality³. These demographic and social transitions both are driven by larger economic transformations. It is not surprising, therefore, that in country after country the youth bulge occurs in conjunction with dramatic transitional shifts in social composition among youth reflecting the underlying forces that are at work. Each country has its own youth bulge and youth transition—distinct as to timing and the interplay of demographic and social components—and yet the overall transformation is unmistakably a shared experience, a common historical episode.

One of the objectives of this AYARR background paper is to highlight the main features of the youth transition in each of the AYARR project countries, against the background of the same trends across Asia as a whole and Asia’s main sub-regions. This will allow readers and analysts alike to locate the cross-sectional, AYARR survey samples in relation to these historical changes. It is noteworthy that when Nepal was surveyed at the beginning of the year 2000 it was still at an early stage of its youth transition. Its youth bulge is yet to come, and the kinds of social transformation described here are, for the most part, still in the future as well. But, when Taiwan was surveyed in 1995, or even Hong Kong in 1986, their youth populations were already in decline and they were virtually at the end of their own youth transitions.

This paper proceeds first by describing the underlying demography of youth numbers. Then we turn to the three social transformations, and then to the conjunction of these in the form of national “youth transitions.” The results are meant to provide an entry point to a discussion of issues of comparison, including comparative measurement, among the surveys.

The Late-Twentieth Century Youth Bulge

Asian youth numbered 239 million in 1950 but 572 million by 1990. This expansion of nearly 2.4 times reflected an underlying 2.2 percent annual growth rate of the youth population, which exceeded somewhat the underlying annual growth rate of the total population. The region’s youth share rose from 19 to nearly 21 percent between 1950 and 1990. All Asian societies participated in this growth of youth numbers, but the true youth bulge had not yet occurred for most of them. Between 1990 and 2025 (according to the World Bank’s projections) the population of Asia will grow by 50 percent, from 2,600 million to 3,897 million, but the Asian youth population will grow by only 6.7 percent to 610 million. Youth’s share of the total Asian population will decline to 15 percent by the end of the period. The total youth population will reach a peak absolute number between 2010 and 2020 and

³ Other youth bulges have been noticed in other times and places. The youth bulge in the Islamic countries commented upon by Huntington (1996: 116ff) have similar origins in demographic transition. But the youth bulge in England between 1550 and 1700, for example, or that around the time of the French Revolution in France (Goldstone 1991) have very different origins.

decline thereafter. The growth rate of the youth population will have begun to slow down somewhat before that.

This All-Asia summary conceals a crucial association at the national level between the timing of demographic changes in youth populations and the timing of the society-wide demographic transitions. By examining individual countries, we can describe the historical sequence that is playing out over the last half of the twentieth century and the first quarter of the twenty-first. The timing of Asian demographic transitions ranges from the earliest in the region (Japan, Singapore, Hong Kong, South Korea) to those that are now underway or have just begun (Bangladesh, Nepal, Pakistan). In the earliest group of transition countries fertility decline began in the 1950s or very early in the 1960s, while the countries in the second group are just now witnessing sustained fertility declines.⁴

In the early-transition countries, the youth bulge—consisting of peak youth growth rates and peak youth shares—occurred in the 1960s or 1970s. In these countries the peak absolute number of youth had been reached by 1980. In the late-transition countries peak youth growth rates occurred near the end of the 20th century, and peak youth shares and peak youth numbers are projected for early in the 21st century if the assumed fertility declines actually occur.

Table 1 summarizes the paths taken through this demographic transformation by the six AYARR countries. The first to go through the transitions was Hong Kong. There, fertility began to decline around 1960 and youth growth rates and population shares peaked over the 1960–1980 period. As early as 1980 or so Hong Kong's youth population had begun to decline in absolute terms. Hong Kong's youth demographic transition, defined as the period from the beginning of fertility decline to the beginning of declining numbers of youth, occurred very quickly, within a span of 20 years. Taiwan is also an early-transition country. Its fertility decline seems to have begun slightly later than Hong Kong's but took place more rapidly. Over a period of only 15 years Taiwan went from the onset of fertility decline to the onset of declining youth numbers.

In the transitional interim, brief as it was for these two countries, there was considerable growth of the youth population (panel 2 of Table 1). This was especially true of Hong Kong, where between the dates of fertility decline and the peak youth number the number of youth multiplied by 3.2 times. Taiwan had a much quicker fertility transition, and thus much less growth of its youth population over a somewhat shorter period of time. The absolute declines in youth numbers after the youth bulge has passed can also be dramatic. Again, Hong Kong illustrates. Its youth population declined from 1.39 million in 1980 to a projected 0.85 million in 2000.

Panel 3 of Table 1 shows the annual growth rates of youth numbers underlying these patterns. Hong Kong's youth population growth rate peaked at a considerable 7.8 percent per year, and even Taiwan's more modest youth bulge was based on an annual 3.0 percent growth rate of youth numbers. But, where Taiwan's youth population was projected to be still growing (albeit very slowly) 20 years after the peak bulge growth rate, Hong Kong's youth population was projected to be in rapid decline. There is a notable roller-coaster pattern to Hong Kong's youth population dynamics that is absent in the Taiwan experience.

⁴ We use as onset dates for sustained fertility decline the estimates suggested by Bongaarts and Watkins (1996), whose criterion was a 10 percent decline in the Total Fertility Rates given in United Nations (1994). Their estimates were supplemented by estimates for Japan, Taiwan, Brunei and Pakistan. Japan's date was taken as 1925, following Kobayashi and Tsubouchi (1979). Taiwan's was taken as 1965 based on data presented in Chang, Freedman and Sun (1981). Brunei's was taken as 1965 based on data in United Nations (1994). Pakistan's was taken as 1990 based on Total Fertility Rates used in the World Bank projections (Bos et al. 1994). For relevant discussion and another set of onset dates see Casterline (1999).

The AYARR project countries next to move through the stages of demographic and youth transitions are the Philippines, Thailand and Indonesia. We examine these in that sequence although the Philippines apparently had a slightly earlier onset of fertility decline, because the Indonesia and Thailand declines were sustained over the ensuing decades and, for Thailand, was quite rapid. The Philippines has had a slower and much less decisive fertility trend. These differences have had important implications for the national transitional demographics of youth.

The Indonesia and Thailand transitions span 30–32 years, while the Philippines transition has been very slow and its youth population has much more growth ahead as of the end of the 20th century, at a time when the Indonesia and Thailand youth populations are already reaching their peak numbers. The projected slow decline in Philippine fertility will allow the Philippine youth population to grow for another 25 years, until 2025. By the time the youth populations in these countries have peaked, their youth populations will have approximately doubled from the numbers when fertility began to decline, except for the Philippines where the youth population will have quadrupled. The peak youth population growth rates are all moderately high for these three countries, at 3.3 to 4.1 percent, with the Philippines intermediate among them. It is clear that the Philippines is distinguished by a slow demographic transition that is allowing a high youth population growth rate to operate for a relatively long period of time, leading to much more transitional growth of the youth population than is found in the other countries. All three countries will finally witness declining youth numbers, though the magnitude for the Philippines reflects trends beyond the range of the population projections we are using.

The final AYARR project country is Nepal, which represents the late-transition countries of South Asia. Nepal's onset of fertility decline is reckoned at 1988. Its peak youth population growth rate occurred around 1995 and its peak youth share is projected for 2005. Its peak youth population size is projected for 25 years later, in 2030. This then is another relatively slow transition, allowing the number of youth to grow by 2.3 times over the course of the youth transition.

This is the background of rapidly changing absolute numbers and proportions of youth. Against this we must examine the dramatic compositional changes among youth that have occurred. These compositional changes are examined next.

Basic Social Transformations among Youth

Delayed Marriage

It is widely recognized that delayed marriage has been occurring across all of Asia for each of the sexes (Smith 1980, Xenos and Gultiano 1992), in a manner somewhat more rapid and consistent than for other world regions (Singh and Samara 1996; United Nations 1988, 1990). The sequence of changes across Asia is by now familiar. First the percents single rose markedly among those aged 15–19, then for those aged 20–24.⁵ These upward shifts have been somewhat greater for females than males, leading to some convergence in what once were very considerable age gaps between spouses. Finally, all these trends occurred first and most rapidly in East Asia but have also been occurring, starting from much lower initial levels, in the countries of South Asia. Southeast Asia has been intermediate and also somewhat more diverse in its experience of nuptiality change. Every country of

⁵ There are important changes at older ages as well (Jones 1997), though whether recent youth cohorts will end up with higher levels of celibacy than in the past remains an open question.

the region and both sexes in each country have participated in the “Asian nuptiality transition” (Smith 1980).

Table 2 presents these trends for Asia and its major sub-regions, and also for each of the AYARR project countries.⁶ Charts 1 and 2 diagram the same data. The six AYARR project countries are generally very good exemplars of their regions, with the exception of Indonesia in Southeast Asia where marriage is relatively early and percents single relatively low (Taj 1990). Also, Nepal in South Asia has had even earlier marriage than its South Asia neighbors, but has been moving up in relative terms in recent years (Thapa 1997).

School Enrollment

School enrollment has had similar upward trends, greater for East Asia, greater for females, greater for those aged 15–19 than 20–24 (c.f. Table 3 and Charts 3–4). Here there is a greater degree of uniformity among sub-regions and countries, perhaps reflecting the fact that the schooling revolution has been engineered, a matter of state policy (Meyer et al. 1992) buttressed by international consensus, whereas the nuptiality transition has largely occurred independently of state policies and reflects the spontaneous interplay of underlying social forms and values with the forces of change.

The Single and Out of School

These trends in percents single and percents enrolled are combined in Table 4 (see also Charts 5–6) into percents single and out-of-school. These are estimated by assuming, with only modest departure from the actual case that all those in school are still single. The resulting percents single and out-of-school may be slightly overstated, but not by enough to falsify the results (c.f. discussion below). At ages 15–19 we find declines in the proportions (but not, at least until very recent for some countries, the absolute numbers) who are single and out-of-school. This occurs, even though proportions single are rising, because proportions enrolled in school have been rising even more rapidly. One clear exception is Nepal, where among the youngest group of females marriage delay has been more rapid than educational advancement, creating a rapidly expanding single, out-of-school segment of the female youth population. Youth ages 20–24 of both sexes have seen slight increases in proportions single and out of school. In this age group percents single have been rising more rapidly than have school enrollment rates.

Labor Force Participation

Labor force participation rates are notoriously lacking in international comparability (Anker 1983; Durand 1975), so we present the ILO-based estimates in Table 5 and Charts 7–8 with appropriate reservations. The broadest trends are probably genuine. These include declining labor force participation rates among those ages 15–19, occurring as rising enrollment rates in that age group keep both young males and females out of the labor force. The same is true of males ages 20–24. Male labor force participation rates are very high, with only a slight decline as advanced-level enrollment rates rise slightly. The trends and levels for the female 20–24 population segment are diverse. The levels range from high (Thailand) to very low (Indonesia), and the trends are generally downward slightly except for the dramatic increases in female labor force participation in Hong Kong and

⁶ For a comprehensive compilation of these data for all the countries of Asia see Xenos and Gultiano (1992).

Taiwan—two societies where fertility decline occurred during the period in question. Fewer children per mother, and changing norms about women's work and child-care roles, have allowed their dramatic increases in labor force participation among young women.

Table 6 provides ratios of youth in the labor force (LF) to those out of school (OS). This ratio approximates the labor force participation rate among those who are out of school, thus more nearly identifying the population groups actually at risk of labor force participation. Precisely correct ratios would come from a tabulation of labor force status by school enrollment status, but this is not generally available, certainly not for the time frame and range of countries we are discussing. Our LF/OS ratios will overstate the labor force participation rates we are trying to estimate to the degree that youth are both enrolled and in the labor force at the same time (c.f. discussion below).

Our census based ratios are generally very high for males throughout the youth age range. Labor force participation seems to be nearly universal among males at ages 20–24. That is to say, once a young man leaves school he enters the labor force. There is slight evidence of decline in the ratio among Taiwan males 20–24, and a somewhat clearer pattern of declining ratios among the younger age group of males in Indonesia and the Philippines, perhaps reflecting relatively high levels of joint work-school participation in these countries. This is a point that can be investigated in the AYARR project data sets.

More variable and therefore more interesting are the ratios among females. The levels are much lower than for males. Across Asia as a whole less than half the out-of-school female population ages 15–19 was in the labor force. There are also considerable sub-regional differentials. The ratios are quite high (though not at the male levels) for East Asia, and rising, while the levels are very much lower, and declining, for South Asian females ages 15–19. Southeast Asia is intermediate with the levels rising somewhat. These patterns are repeated though at different levels among females aged 20–24. The individual countries also vary, especially among the three Southeast Asian countries. In Thailand out-of-school women ages 20–24 are very likely to be in the labor force, while in Indonesia the same group of women is unlikely to be in the labor force. To understand these patterns fully we would have to have cross-tabulations of labor force status, school status and marital status.

Sub-Group Sex Ratios

Another kind of implication of this changing social composition takes the form of substantial variations and changes in population sub-group sex ratios. Sex ratios reflect gender differences in survivorship, and most especially gender differences in school enrollment rates and percents ever married. The compositional trends we have been looking at are sometimes quite different for males and females, thus producing shifts in the ratios of males to females within the sub-groups in question.

For example, across all the countries the ratio of single males to single females declines from very male-dominated levels in 1950 to more nearly gender-equal levels in 1990. Around 1950 in Hong Kong and Taiwan there were three single males for every single female. In Indonesia the ratio was two to one, and in Nepal the ratio was five to one. Young single females were scarce, and young single males were plentiful. Investigation would show, we suggest, how these societies developed norms and social arrangements to deal with this situation. By 1990 the single sex ratio had declined to under 1200 in most of these countries, a slight excess of single males. Indonesia and Nepal are exceptions. In Indonesia the single sex ratio was still 1,381 in 1990, and this ratio was 1,892 in Nepal in 1990.

In the same way we find that the sex ratio among those enrolled in school was quite high around 1950, reaching over three males for every female in Taiwan, and nearly two to one in Hong

Kong and Indonesia. By 1990 these in-school sex ratios had declined to virtual gender-parity, except for some male bias in Indonesia and a ratio of two males for every female in school in Nepal.

Labor force participants were predominantly male in 1950, generally at two males for every female, and the reductions by 1990 are less dramatic than for the other indicators. There are still three males for every two females in the labor force in Nepal, Indonesia and the Philippines, and a much lower level in Thailand. Interestingly, Hong Kong and Taiwan with very male-dominated labor force sex ratios in 1950, are close to gender-parity by 1990. This reflects in part the completion of the fertility transition in those countries and the integration of marriage and childbearing with labor force participation. These labor force patterns can be examined in some detail in the AYARR project surveys, where marital status, number of living children and the like can be considered.

Waves of Change, Social on Demographic: The Youth Transition

We have thus far described separate demographic and social transformations among youth. Each set of changes has its own causes and dynamics; yet, they have in large measure occurred together, as part of one historical conjuncture. The central facts are brought out by a metaphor of ocean waves moving forward toward the shoreline stacked one upon the other. The underlying force is the relative as well as absolute expansion of the number of youth, reflecting each country's recent history of fertility and mortality changes—its path through demographic transition. Table 1 above showed the time path of demographic transition and the accompanying youth bulge for each of the AYARR project countries. Youth growth rates often grew by several percentage points and remained elevated for some time before subsiding, creating a temporary youth bulge. The whole transition occurs quickly in some societies and slowly in others, with notable implications for the overall expansion of youth populations.

Stacked atop the youth bulge are the dramatic changes in social composition reviewed earlier, which produce even higher growth rates of youth in certain sub-groups: for example, the single, those in school, and those not in the labor force. Some examples are given in Table 7. For each of the AYARR project countries Table 7 shows the growth rate of all youth at around the time when that rate was at its youth bulge peak. This date varies from 1960 in Hong Kong to 1995 in Nepal. The peak youth population growth rates are substantial—exceptional for Hong Kong where immigration also made a substantial contribution, and very high elsewhere. But during that period of time the growth rate of single youth was usually even greater (c.f. the Philippines and Thailand). A more complex interplay is illustrated by the growth rates for those who are single and out of school. This typically reflects more rapid growth of the single youth population combined with less rapid growth of the out-of-school youth population. The result varies widely, from negative in Hong Kong, to very low in several countries, to very rapid in Nepal where the delayed marriage trend has been outstripping the shift of young girls and women into schools.

Lastly, we turn briefly to the variation in these rates around the dates when the various AYARR project surveys were conducted (2nd panel of Table 7). There is again a wide variation. When the 1986 survey was conducted in Hong Kong the youth growth rates were negative, in fact substantially so, whereas these rates were positive, substantially so for the single youth in Indonesia and the Philippines, and dramatically positive in Nepal.

Final Comments

Recent policy statements on youth have emphasized that the current youth cohort worldwide is the largest in world history. This analysis of individual countries and of the mechanisms underlying youth numbers and growth rates and the youth bulge phenomenon looks more carefully at this claim and distinguishes three sets of countries: those (including many developed countries) where youth numbers have already begun to decline; those which are presently undergoing their periods of peak youth shares and growth rates; and those for which the youth transition and peak youth numbers are yet to come. Among the AYARR project countries, Taiwan, Hong Kong and Thailand are in the first group, the Philippines and Indonesia are in the second, and Nepal is in the third.

The AYARR project's comparative research agenda necessarily reflects these important differences among the societies under study. It is the argument of this analysis that the recent demographic history of these societies, and particularly the recent histories of youth transition, will have a considerable bearing on the issues that are under study. It enhances and to a degree organizes comparative investigation to recognize the differences among the countries, but it is also helpful to recognize the fact that all these changes are part of a common experience of youth transition. It is also important to recognize the limitations imposed by differences in measurement procedure across countries, whether one is comparing censuses, or surveys, or one source with another. Comparative analysis can be productive, but only when great care is taken.

Appendix: Methods Employed

Estimates

The goal of the research underlying this paper was to identify the broad outlines of a regional youth demography, including common features and national differences, doing so within an empirical framework assuring a level of comparability among countries, allowing the aggregation of countries into regional patterns, and at the same time the disaggregation of the youth cohort into certain important social-demographic sub-groups. Available data sources (cf Xenos and Kabamalan 1998a: Appendix D) made it possible to produce estimates at an acceptable level of accuracy for seventeen countries over the historical period 1950 through 1990. These long-term trends were complemented by projections from 1990 to the year 2025. Throughout the exercise the youth cohort was defined to encompass persons aged 15 through 24, an arbitrary but common and useful definition.

The empirical base was estimates of the population in five-year age groups by sex, as produced by the United Nations Population Division for each country, for quinquennia from 1950 through 1990 (United Nations 1994, 1995), combined with projections thereafter until 2025 as prepared by the World Bank (Bos et al. 1994).

The same broad geographic coverage, and the same disaggregation into sexes and quinquennial age groups, was sought for social classifications within the youth population. Available data made it possible to disaggregate the single from the ever-married, those in school versus out of school, and those economically active (in the labor force) or not. These are not particularly subtle classifications, but they are important ones which delimit major dimensions of both temporal change and cross-national variation among youth. All these classifications were reconstructed from existing data, in so far as possible for the period from 1950 through 1990. The resulting historical series on proportions single were then projected into the future using a methodology which developed for the purpose. The historical series on school enrollment was projected to 2025 on the basis of the future

enrollment ratios given in UNESCO's most recent round of enrollment ratio projections (UNESCO 1993). The historical series on the labor force was projected to 2025 by utilizing economic activity rate projections prepared by the International Labor Office (1986–1990). With all three series alternative projections series were not developed since they would have been highly speculative in any case.

While the marital status dimension, enrollment status, and labor force status are each routinely classified by age group and by sex, cross classifications among marital, enrollment and labor force statuses are rarely available, certainly not in time series for any country. In this report we presented selected cross-classifications identifying youth sub-groups of programmatic importance, though doing so has required certain assumptions as outlined below.

It cannot be emphasized too strongly that this our discussion of the social composition of youth populations depends on the quality and reliability of the data employed, on the procedures used for screening data and adjusting for discrepancies and gaps in the information, and also on the assumptions employed to identify the categories in the overall social taxonomy arrived at. The objective has been scenario-building rather than precision. The stress was on long-term change and on international and male-female comparisons. To achieve the comparative objective, and for ease of presentation, all results were interpolated to conventional quinquennial dates.

Estimated Percents Single

Percents single were calculated from the marital status distributions available in published census sources. A total of 132 censuses were examined and marital status distributions were extracted for a total of 974 census dates across the whole of Asia. The temporal as well as geographic coverage of percents single in the censuses is excellent. The 17 countries examined in have, cumulatively, 688 years of experience from 1950 to 1996, and 94 percent of this time is encompassed by the 132 national censuses consulted (cf Xenos and Kabamalan 1998a: Appendix D, Table D.1). It was necessary to extrapolate backward for a total of 38 years to reach the desired 1950 starting point (the major instances being Indonesia and Nepal for which the first available marital status data are in 1961). These marital status data were presented previously by Smith (1980) and Xenos and Gultiano (1992), and these sources report the adjustments necessary to bring the data into a common form.

Estimated Percents Enrolled

The most widely accessible form of internationally comparable schooling data is as gross and enrollment ratios, in which the numerator is the number enrolled or the number for a particular age and sex category recorded as enrolled, and the denominator is the total of persons in that age-sex category. Such sources as the *UNESCO Statistical Yearbook* present these ratios by sex and functional age group (corresponding to schooling levels—usually ages 6–11, 12–17, 18–23) for many countries. Though useful, enrollment ratios are often influenced by administrative and other factors. For some countries these ratios overestimate the actual enrollment of the age groups and can even exceed unity. Percents enrolled by sex for quinquennial age groups (the age groups for which most other international data are presented) are provided by member countries to the United Nations Statistical Division and appear in the annual *Demographic Yearbook*. These data generally are drawn from census tabulations wherein the numerators are persons reported as enrolled during the census year. These percents enrolled are most suitable for the present purpose but are not universally available. Percents enrolled by age and sex were extracted from 73 national censuses cumulatively encompassing

439 years of experience. It was necessary to extrapolate for a total of 176 additional years to reach the desired 1950 starting point (cf Xenos and Kabamalan 1998a: Appendix D, Table D.1).

Census percents enrolled do not always form a consistent, plausible series. Data quality is an issue, as are definitional and administrative changes. In light of these problems the considerable body of percents enrolled was supplemented by national enrollment ratios by age and sex as provided by the UNESCO Division of Statistics in connection with its effort to project the future path of enrollment ratios in each country (UNESCO 1977, 1983, 1993). The UNESCO compilation provides enrollment ratios by sex and functional age group (ages 6–11, 12–17, 18–23), obtained by combining administrative enrollment figures with population estimates. For the present exercise used the UNESCO enrollment ratios for functional age groups as a basis for estimating percents enrolled in quinquennial age groups, using prediction equations estimated separately for each sex and age group from cross-national data for all the countries of Asia, and all their census dates, for which both enrollment ratios and percents enrolled could be found. The detailed project report indicates, it was necessary to use these predicted percents enrolled rather than direct percents enrolled for only three countries: Myanmar, the People's Republic of China, and Nepal.

Estimated Percents in the Labor Force

A standardized set of national estimates and projections of the labor force and labor force participation rates by age and sex prepared by the International Labor Organization (1986) was utilized. This is the second revision of national projections presented previously (International Labour Organization 1971, 1977) and draws on the 1980 round of censuses and labor force surveys carried out through that year. Estimates were produced for 1950, 1960, 1970 and 1980, and projections were carried out for 1985 and thereafter through 2025. National input data were standardized where necessary as to concepts, scope, coverage and age classifications. Special estimation procedures for certain Asian countries with data deficiencies are described in the ILO report (Methodological Supplement). The ILO's estimated national participation rates were combined with the United Nations Population Division's population estimates (United Nations 1994) and the resulting estimated numbers in the labor force were aggregated into regional totals. These, in turn, were applied to regional population estimates to yield regional participation rates.

Projections

The World Bank's population projections incorporate mortality and fertility assumptions applied in a cohort-component framework (Bos et al. 1994). Mortality, indexed by life expectancy at birth, is allowed to improve along a curve defined by a logistic function, with five-year improvements which become smaller at higher initial levels. Age and sex patterns are based on extended life tables prepared by Coale and Guo (1989). Fertility is indexed by the total fertility rate, with different trajectories for countries that were already in a fertility decline by 1990 and countries that were not. The total fertility rate, or TFR, is the total number of children that a woman in a hypothetical cohort would have at prevailing age-specific fertility rates.

For the countries in a fertility decline by 1990, the TFR is reduced so that the net reproduction rate descends to replacement level by the year 2030 at five-year rates determined by previous rates of change. (The net reproduction rate, or NRR, is the number of daughters that a woman in a hypothetical cohort would have at prevailing age-specific fertility rates and the prevailing sex ratio at birth.) For the countries not yet in a fertility decline by 1990, it is assumed that a decline in the TFR toward a replacement-level NRR begins once life expectancy (male and female combined) has reached

50 years. Different levels of TFR invoke different age patterns of fertility. For a country with a TFR of six or more children per woman, an early-fertility pattern is assumed, for a country with a TFR of three or fewer children, a late-fertility pattern is assumed, and for countries with TFRs between three and six, a fertility pattern is interpolating between these two patterns.

The projections of percentages single rely on the essentially uniform pattern of rising percentages single witnessed throughout the region in recent decades. Japan led the way during the two decades before 1995 and by that year had very high percentages of males and females single at ages 15–19 and 20–24. Regression analysis indicates that the proportions single rise throughout Asia as the gross national product per capita rises. As a first approximation to a reasonable scenario for 2025, it was assumed that Japan's percentages single will rise no further, while other societies will move toward Japan's level over the 30-year projection period. Intervening estimates were fitted using a logistic function.

Projected percentages of youth enrolled in school at ages 15–19 and 20–24 for each sex were obtained from corresponding projections of enrollment ratios prepared by the UNESCO Division of Statistics (UNESCO 1993). In the UNESCO methodology, enrollment ratios are estimated or projected for each sex and for three grade levels (primary, secondary, tertiary) and three functional age groups (6–11, 12–17, 18–23). The trend in the enrollment ratio at ages 6–11 is first extrapolated, then distributed among grade levels. Results for the other age groups are obtained by means of appropriate transition coefficients. Projections are obtained using a logistic function. The UNESCO enrollment ratios for functional age groups were transformed into percentages enrolled for five-year age groups on the basis of regression relationships between the two kinds of estimate over countries and years where both are available.

Projections of percentages economically active came from the International Labour Office's most recent series by country (ILO 1986). The methodology builds on a five-year series of activity rates over 1950–80 that the ILO estimated for each country, combined with estimates of the sectoral distribution of the labor force over the same period. Following the procedure used in previous labor force projections, the ILO carried out projections by country based on the observation that national configurations of age- and sex-specific participation rates reflect national distributions of labor by sector, which change with economic development. The level of economic development is indexed by a single criterion variable, the "percentage of the economically active male population engaged in agriculture," or PEAMPEA. Using country-level data from 1950 to 1980, the ILO has estimated shifts in age- and sex-specific labor force participation rates. Projections of future trends in age- and sex-specific labor force participation rates are based on projected future trends in the PEAMPEA and the observed relationship between participation rates and the PEAMPEA during 1950–80. Overall, the relationship between these variables is parabolic, with the greatest changes in age- and sex-specific participation rates occurring when the PEAMPEA is at intermediate levels.

The projections of national youth transitions combine these population, labor force, and enrollment projections. It must be emphasized that these several projection exercises were not conducted in an interactive fashion because they are based on the products of different international agencies carried out for the agencies' own, somewhat different purposes. It is necessary to assess the compatibility of the series at the country level, since the two UN agencies do not always use the same definition of sub-regions. It was found that across the projection period the sum of percentages of youth enrolled and in the labor force slightly exceeded 100 in only two countries, Hong Kong and Singapore, where the proportions of youth in school and in the labor force are very high. In these cases the percentages enrolled were adjusted slightly downward.

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Table 1. Various Indicators of Youth Transition Demography, for Selected Asian Countries

| Indicator | Hong Kong | Philippines | Taiwan | Thailand | Indonesia | Nepal |
|---|-----------|-------------|-----------|-----------|-----------|-----------|
| Key Dates | | | | | | |
| Onset of fertility decline | 1960 | 1963 | 1965 | 1968 | 1970 | 1988 |
| Peak growth rate among youth | 1960 | 1965 | 1970 | 1970 | 1970 | 1995 |
| Peak youth share of total population | 1980 | 1975 | 1980 | 1985 | 2000 | 2005 |
| Peak size of youth population | 1980 | 2025 | 1980 | 2000 | 2000 | 2030 |
| Duration of Youth Transition¹ | 20 | 62 | 15 | 32 | 30 | 42 |
| Absolute Size of Youth Population at Onset of Fertility Decline (000) (Indexed: 1.0 is level at onset of fertility decline) | 356 | 5,244 | 2,598 | 6,530 | 21,370 | 1,788 |
| At peak growth rate among youth | 1.0 | 1.2 | 1.1 | 1.0 | 1.0 | 1.2 |
| At peak youth share of total population | 3.2 | 1.7 | 1.5 | 1.7 | 1.6 | 1.6 |
| At peak size of youth population | 3.2 | 4.0 | 1.5 | 1.9 | 2.0 | 2.3 |
| 20 years after peak size of youth population | 2.4 | NA | 1.5 | 1.8 | 1.9 | NA |
| Annual Growth Rate of the Youth Population | | | | | | |
| 20 years before peak growth rate among youth | NA | 3.3 | 3.0 | 1.6 | 1.5 | 2.0 |
| At peak growth rate among youth | 7.8 | 3.7 | 3.0 | 4.1 | 3.3 | 3.5 |
| 20 years after peak growth rate among youth | -2.7 | 2.1 | 0.5 | 0.3 | 2.2 | 1.6 |

Notes:

¹Defined as the duration from the onset of fertility decline to peak size of the youth age group.

NA indicates data not available.

Source:

Xenos, Peter and Midea Kabamalan. 1998. The Social Demography of Asian Youth: A Reconstruction over 1950–1990 and Projection to 2025. Report for the Project on the Long-Term Transformations of Youth in Asia (Population Council).

**Table 2. Percent Single by Sex and Age Group, Regions and Selected Countries of Asia:
Estimates for 1950–1990**

| Region/Country | Male | | | | | Female | | | | |
|-----------------------------|------|------|------|------|------|--------|------|------|------|------|
| | 1950 | 1960 | 1970 | 1980 | 1990 | 1950 | 1960 | 1970 | 1980 | 1990 |
| AGE 15 – 19 | | | | | | | | | | |
| Asia ^a | 79.0 | 84.2 | 88.2 | 91.2 | 92.9 | 45.8 | 48.3 | 56.9 | 64.4 | 71.7 |
| East Asia ^b | 97.6 | 99.5 | 99.4 | 99.5 | 99.0 | 91.2 | 97.4 | 97.1 | 98.1 | 98.5 |
| Hong Kong | 95.9 | 98.4 | 99.5 | 98.6 | 99.4 | 86.5 | 93.0 | 96.7 | 96.3 | 98.3 |
| Taiwan | 96.1 | 98.3 | 99.2 | 99.1 | 99.2 | 81.7 | 89.6 | 92.8 | 94.7 | 97.3 |
| Southeast Asia ^c | 93.6 | 94.0 | 95.3 | 96.0 | 96.5 | 65.4 | 67.8 | 72.4 | 77.3 | 85.2 |
| Indonesia | 93.8 | 93.8 | 94.7 | 96.4 | 97.6 | 59.5 | 59.5 | 62.2 | 69.9 | 81.8 |
| Philippines | 97.0 | 97.0 | 97.6 | 96.3 | 97.0 | 86.9 | 87.3 | 89.2 | 85.9 | 89.5 |
| Thailand | 91.9 | 94.7 | 96.2 | 95.7 | 94.6 | 76.9 | 81.5 | 81.1 | 83.3 | 87.3 |
| South Asia ^d | 69.6 | 77.1 | 83.6 | 88.2 | 90.9 | 27.4 | 29.5 | 42.8 | 54.1 | 63.2 |
| Nepal | 52.6 | 62.3 | 72.0 | 74.0 | 78.9 | 10.7 | 24.3 | 37.9 | 48.2 | 52.4 |
| AGE 20 – 24 | | | | | | | | | | |
| Asia ^a | 49.8 | 55.4 | 60.2 | 62.3 | 66.4 | 16.2 | 18.8 | 23.7 | 23.9 | 31.1 |
| East Asia ^b | 74.9 | 89.1 | 90.4 | 91.3 | 93.5 | 46.5 | 61.6 | 67.4 | 71.6 | 82.6 |
| Hong Kong | 77.1 | 85.4 | 92.1 | 88.8 | 93.2 | 40.4 | 47.9 | 63.9 | 69.8 | 82.1 |
| Taiwan | 57.5 | 72.4 | 87.7 | 87.4 | 92.9 | 24.2 | 33.7 | 50.4 | 58.5 | 75.4 |
| Southeast Asia ^c | 61.0 | 62.7 | 62.2 | 62.4 | 71.0 | 21.1 | 23.5 | 30.1 | 33.6 | 44.6 |
| Indonesia | 62.8 | 62.8 | 59.3 | 59.4 | 71.7 | 13.8 | 13.8 | 18.0 | 22.3 | 35.7 |
| Philippines | 65.4 | 65.5 | 69.3 | 63.3 | 73.2 | 43.7 | 44.3 | 50.3 | 45.5 | 56.7 |
| Thailand | 59.0 | 65.7 | 63.8 | 65.7 | 69.1 | 30.0 | 36.3 | 38.0 | 43.5 | 48.2 |
| South Asia ^d | 40.3 | 45.0 | 52.0 | 57.2 | 60.9 | 6.7 | 6.7 | 10.1 | 11.6 | 18.4 |
| Nepal | 19.0 | 25.7 | 32.4 | 40.1 | 38.4 | 2.4 | 5.0 | 7.6 | 12.6 | 12.8 |

Notes:

^aIncludes countries of b, c, and d below.

^bIncludes Hong Kong, Japan, South Korea, and Taiwan.

^cIncludes Brunei, Indonesia, Malaysia, Myanmar, Philippines, Singapore, and Thailand.

^dIncludes Bangladesh, India, Nepal, Pakistan, and Sri Lanka.

Source:

Xenos, Peter and Midea Kabamalan. 1998. The Social Demography of Asian Youth: A Reconstruction Over 1950–1990 and Projection to 2025. Report for the Project on the Long-Term Transformations of Youth in Asia (Population Council Contract CI97.63A with the East-West Center's Program on Population). Honolulu: East-West Center.

**Table 3. Percent in School by Sex and Age Group, Regions and Selected Countries of Asia:
Estimates for 1950–1990**

| Region/Country | Male | | | | | Female | | | | |
|-----------------------------|------|------|------|------|------|--------|------|------|------|------|
| | 1950 | 1960 | 1970 | 1980 | 1990 | 1950 | 1960 | 1970 | 1980 | 1990 |
| AGE 15 – 19 | | | | | | | | | | |
| Asia ^a | 22.9 | 29.1 | 33.8 | 38.2 | 38.9 | 13.6 | 13.6 | 18.0 | 23.2 | 25.6 |
| East Asia ^b | 36.8 | 44.2 | 55.6 | 69.1 | 73.3 | 36.2 | 35.6 | 51.6 | 66.3 | 74.2 |
| Hong Kong | 34.1 | 38.7 | 43.3 | 47.9 | 53.1 | 20.3 | 29.7 | 39.1 | 48.5 | 56.5 |
| Taiwan | 25.8 | 25.8 | 47.0 | 47.7 | 58.6 | 10.1 | 10.1 | 36.5 | 45.1 | 62.2 |
| Southeast Asia ^c | 18.7 | 22.4 | 26.9 | 37.5 | 39.2 | 12.3 | 13.0 | 17.2 | 27.6 | 33.9 |
| Indonesia | 22.0 | 22.6 | 28.4 | 41.0 | 44.2 | 11.0 | 11.0 | 15.9 | 26.8 | 37.3 |
| Philippines | 13.0 | 27.0 | 27.9 | 38.3 | 39.9 | 24.8 | 24.6 | 24.9 | 33.9 | 37.3 |
| Thailand | 7.9 | 9.6 | 15.3 | 29.0 | 27.9 | 4.1 | 5.9 | 9.7 | 24.8 | 26.5 |
| South Asia ^d | 20.7 | 27.6 | 31.6 | 33.4 | 33.9 | 8.2 | 8.3 | 11.2 | 14.4 | 15.6 |
| Nepal | 5.0 | 10.0 | 23.0 | 29.5 | 31.0 | 7.5 | 7.5 | 8.9 | 10.2 | 17.7 |
| AGE 20 – 24 | | | | | | | | | | |
| Asia ^a | 6.0 | 8.5 | 10.9 | 12.0 | 12.5 | 2.0 | 2.0 | 3.3 | 4.9 | 6.2 |
| East Asia ^b | 9.1 | 10.5 | 14.8 | 18.6 | 21.6 | 2.3 | 2.4 | 5.9 | 9.7 | 15.4 |
| Hong Kong | 9.3 | 9.3 | 8.3 | 7.4 | 7.2 | 5.6 | 5.8 | 6.0 | 6.2 | 11.4 |
| Taiwan | 14.2 | 14.2 | 14.4 | 10.1 | 15.1 | 2.5 | 2.5 | 9.8 | 8.1 | 16.4 |
| Southeast Asia ^c | 5.4 | 6.6 | 9.8 | 11.7 | 12.5 | 3.4 | 3.1 | 5.3 | 7.9 | 11.0 |
| Indonesia | 5.7 | 5.7 | 9.7 | 9.9 | 12.1 | 1.5 | 1.5 | 2.9 | 4.0 | 7.2 |
| Philippines | 5.0 | 11.0 | 15.1 | 21.0 | 22.0 | 16.1 | 11.6 | 17.0 | 23.7 | 31.8 |
| Thailand | 1.1 | 2.6 | 3.4 | 9.2 | 7.6 | 0.4 | 1.4 | 2.2 | 7.1 | 7.8 |
| South Asia ^d | 5.5 | 8.6 | 10.2 | 10.9 | 11.1 | 1.5 | 1.6 | 2.0 | 2.9 | 3.0 |
| Nepal | 2.0 | 10.0 | 10.0 | 12.2 | 8.9 | 2.5 | 2.5 | 2.7 | 2.9 | 3.0 |

Notes:

^aIncludes countries of b, c, and d below.

^bIncludes Hong Kong, Japan, South Korea, and Taiwan.

^cIncludes Brunei, Indonesia, Malaysia, Myanmar, Philippines, Singapore, and Thailand.

^dIncludes Bangladesh, India, Nepal, Pakistan, and Sri Lanka.

Source:

Xenos, Peter and Midea Kabamalan. 1998. The Social Demography of Asian Youth: A Reconstruction Over 1950–1990 and Projection to 2025. Report for the Project on the Long-Term Transformations of Youth in Asia (Population Council Contract CI97.63A with the East-West Center's Program on Population). Honolulu: East-West Center.

Table 4. Percent Single and Out-of-School by Sex and Age Group, Regions and Selected Countries of Asia: Estimates for 1950–1990

| Region/Country | Male | | | | | Female | | | | |
|-----------------------------|------|------|------|------|------|--------|------|------|------|------|
| | 1950 | 1960 | 1970 | 1980 | 1990 | 1950 | 1960 | 1970 | 1980 | 1990 |
| AGE 15 –19 | | | | | | | | | | |
| Asia ^a | 56.1 | 55.0 | 54.4 | 52.9 | 54.0 | 32.2 | 34.8 | 38.9 | 41.2 | 46.2 |
| East Asia ^b | 60.8 | 55.4 | 43.7 | 30.4 | 25.6 | 55.0 | 61.9 | 45.4 | 31.8 | 24.3 |
| Hong Kong | 61.8 | 59.7 | 56.2 | 50.7 | 46.3 | 66.2 | 63.3 | 57.6 | 47.8 | 41.8 |
| Taiwan | 70.3 | 72.5 | 52.2 | 51.4 | 40.6 | 71.6 | 79.5 | 56.3 | 49.6 | 35.1 |
| Southeast Asia ^c | 74.9 | 71.7 | 68.4 | 58.5 | 57.3 | 53.1 | 54.8 | 55.3 | 49.7 | 51.4 |
| Indonesia | 71.9 | 71.3 | 66.3 | 55.4 | 53.4 | 48.6 | 48.6 | 46.3 | 43.1 | 44.5 |
| Philippines | 84.0 | 70.0 | 69.7 | 58.0 | 57.1 | 62.1 | 62.7 | 64.3 | 52.0 | 52.2 |
| Thailand | 84.0 | 85.1 | 80.9 | 66.7 | 66.7 | 72.8 | 75.6 | 71.4 | 58.5 | 60.8 |
| South Asia ^d | 48.9 | 49.5 | 52.0 | 54.8 | 57.0 | 19.2 | 21.2 | 31.6 | 39.7 | 47.6 |
| Nepal | 47.6 | 52.3 | 49.0 | 44.5 | 47.8 | 3.2 | 16.8 | 29.1 | 38.0 | 34.7 |
| AGE 20 – 24 | | | | | | | | | | |
| Asia ^a | 43.8 | 46.9 | 49.3 | 50.3 | 53.9 | 14.2 | 16.8 | 20.4 | 19.1 | 24.9 |
| East Asia ^b | 65.9 | 78.6 | 75.6 | 72.7 | 71.9 | 44.2 | 59.3 | 61.5 | 61.8 | 67.1 |
| Hong Kong | 67.8 | 76.1 | 83.8 | 81.5 | 86.0 | 29.8 | 42.0 | 57.9 | 63.6 | 70.7 |
| Taiwan | 43.4 | 58.2 | 73.3 | 77.3 | 77.8 | 21.7 | 31.2 | 40.6 | 50.4 | 59.0 |
| Southeast Asia ^c | 55.6 | 56.0 | 52.4 | 50.7 | 58.4 | 17.8 | 20.4 | 24.8 | 25.7 | 33.6 |
| Indonesia | 57.0 | 57.0 | 49.6 | 49.5 | 59.6 | 12.3 | 12.3 | 15.2 | 18.3 | 28.5 |
| Philippines | 60.4 | 54.5 | 54.2 | 42.3 | 51.2 | 27.6 | 32.7 | 33.3 | 21.8 | 24.9 |
| Thailand | 57.9 | 63.1 | 60.4 | 56.5 | 61.5 | 29.6 | 34.9 | 35.8 | 36.4 | 40.4 |
| South Asia ^d | 34.8 | 36.3 | 41.8 | 46.2 | 49.8 | 5.1 | 5.1 | 8.1 | 8.7 | 15.4 |
| Nepal | 17.0 | 15.7 | 22.4 | 27.9 | 29.5 | 0.0 | 2.5 | 4.9 | 9.7 | 9.8 |

Notes:

^aIncludes countries of b, c, and d below.

^bIncludes Hong Kong, Japan, South Korea, and Taiwan.

^cIncludes Brunei, Indonesia, Malaysia, Myanmar, Philippines, Singapore, and Thailand.

^dIncludes Bangladesh, India, Nepal, Pakistan, and Sri Lanka.

Source:

Xenos, Peter and Midea Kabamalan. 1998. The Social Demography of Asian Youth: A Reconstruction Over 1950–1990 and Projection to 2025. Report for the Project on the Long-Term Transformations of Youth in Asia (Population Council Contract CI97.63A with the East-West Center's Program on Population). Honolulu: East-West Center.

**Table 5. Percent in the Labor Force by Sex and Age Group, Regions and Selected Countries of Asia:
Estimates for 1950–1990**

| Region/Country | Male | | | | | Female | | | | |
|-----------------------------|------|------|------|------|------|--------|------|------|------|------|
| | 1950 | 1960 | 1970 | 1980 | 1990 | 1950 | 1960 | 1970 | 1980 | 1990 |
| AGE 15 –19 | | | | | | | | | | |
| Asia ^a | 75.7 | 68.8 | 61.5 | 54.6 | 52.4 | 38.8 | 36.0 | 31.9 | 27.7 | 25.4 |
| East Asia ^b | 62.3 | 53.7 | 41.7 | 28.1 | 25.6 | 50.8 | 47.4 | 39.0 | 28.6 | 25.8 |
| Hong Kong | 58.0 | 55.0 | 51.0 | 46.0 | 45.0 | 43.0 | 48.0 | 56.0 | 44.0 | 43.0 |
| Taiwan | 74.2 | 67.0 | 53.0 | 46.0 | 41.4 | 51.0 | 48.0 | 45.0 | 42.0 | 37.8 |
| Southeast Asia ^c | 79.3 | 73.4 | 65.1 | 57.5 | 54.5 | 46.5 | 44.1 | 42.8 | 41.6 | 38.8 |
| Indonesia | 78.0 | 73.0 | 64.0 | 54.2 | 51.2 | 30.4 | 30.6 | 30.8 | 31.4 | 29.4 |
| Philippines | 87.0 | 73.0 | 60.0 | 50.0 | 47.0 | 61.0 | 50.0 | 39.0 | 33.0 | 31.0 |
| Thailand | 81.0 | 79.0 | 75.0 | 71.0 | 68.0 | 88.0 | 81.0 | 75.0 | 72.0 | 66.0 |
| South Asia ^d | 78.0 | 71.1 | 64.3 | 58.0 | 55.6 | 33.1 | 30.5 | 26.5 | 22.6 | 20.8 |
| Nepal | 95.0 | 90.0 | 77.0 | 70.0 | 69.0 | 60.0 | 57.0 | 54.0 | 51.0 | 49.0 |
| AGE 20 – 24 | | | | | | | | | | |
| Asia ^a | 92.8 | 90.0 | 87.8 | 85.9 | 85.5 | 42.4 | 41.2 | 40.1 | 36.1 | 34.6 |
| East Asia ^b | 90.5 | 87.7 | 83.8 | 78.7 | 77.2 | 56.9 | 60.9 | 65.5 | 66.0 | 68.6 |
| Hong Kong | 90.0 | 90.0 | 90.0 | 91.0 | 91.0 | 42.0 | 53.0 | 68.0 | 78.0 | 79.0 |
| Taiwan | 83.0 | 84.0 | 85.0 | 85.0 | 76.5 | 15.0 | 28.0 | 41.0 | 52.0 | 57.2 |
| Southeast Asia ^c | 92.6 | 90.3 | 86.6 | 84.3 | 83.7 | 42.5 | 42.2 | 45.3 | 46.6 | 46.5 |
| Indonesia | 93.0 | 91.0 | 87.0 | 84.9 | 84.3 | 26.3 | 27.9 | 33.0 | 34.0 | 36.0 |
| Philippines | 95.0 | 89.0 | 83.0 | 79.0 | 78.0 | 53.0 | 49.0 | 46.0 | 44.0 | 42.0 |
| Thailand | 91.0 | 90.0 | 88.0 | 85.0 | 85.0 | 89.0 | 84.0 | 81.0 | 80.0 | 74.0 |
| South Asia ^d | 93.4 | 90.5 | 89.2 | 87.7 | 87.2 | 38.5 | 36.0 | 31.6 | 26.7 | 25.1 |
| Nepal | 98.0 | 90.0 | 90.0 | 87.0 | 87.0 | 54.0 | 52.0 | 50.0 | 48.0 | 45.0 |

Notes:

^aIncludes countries of b, c, and d below.

^bIncludes Hong Kong, Japan, South Korea, and Taiwan.

^cIncludes Brunei, Indonesia, Malaysia, Myanmar, Philippines, Singapore, and Thailand.

^dIncludes Bangladesh, India, Nepal, Pakistan, and Sri Lanka.

Source:

Xenos, Peter and Midea Kabamalan. 1998. The Social Demography of Asian Youth: A Reconstruction Over 1950–1990 and Projection to 2025. Report for the Project on the Long-Term Transformations of Youth in Asia (Population Council Contract CI97.63A with the East-West Center's Program on Population). Honolulu: East-West Center.

Table 6. Ratio of Persons in the Labor Force to Out-of-School by Age and Sex Group, Regions and Selected Countries of Asia: Estimates for 1950–1990

| Region/Country | Male | | | | | Female | | | | |
|-----------------------------|------|------|------|------|------|--------|------|------|------|------|
| | 1950 | 1960 | 1970 | 1980 | 1990 | 1950 | 1960 | 1970 | 1980 | 1990 |
| AGE 15 –19 | | | | | | | | | | |
| Asia ^a | 0.98 | 0.97 | 0.93 | 0.88 | 0.86 | 0.45 | 0.42 | 0.39 | 0.36 | 0.34 |
| East Asia ^b | 0.99 | 0.96 | 0.94 | 0.91 | 0.96 | 0.80 | 0.74 | 0.81 | 0.85 | 1.00 |
| Hong Kong | 0.88 | 0.90 | 0.90 | 0.88 | 0.96 | 0.54 | 0.68 | 0.92 | 0.85 | 0.99 |
| Taiwan | 1.00 | 0.90 | 1.00 | 0.88 | 1.00 | 0.57 | 0.53 | 0.71 | 0.77 | 1.00 |
| Southeast Asia ^c | 0.98 | 0.95 | 0.89 | 0.92 | 0.90 | 0.53 | 0.51 | 0.52 | 0.57 | 0.59 |
| Indonesia | 1.00 | 0.94 | 0.89 | 0.92 | 0.92 | 0.34 | 0.34 | 0.37 | 0.43 | 0.47 |
| Philippines | 1.00 | 1.00 | 0.83 | 0.81 | 0.78 | 0.81 | 0.66 | 0.52 | 0.50 | 0.49 |
| Thailand | 0.88 | 0.87 | 0.89 | 1.00 | 0.94 | 0.92 | 0.86 | 0.83 | 0.96 | 0.90 |
| South Asia ^d | 0.98 | 0.98 | 0.94 | 0.87 | 0.84 | 0.36 | 0.33 | 0.30 | 0.26 | 0.25 |
| Nepal | 1.00 | 1.00 | 1.00 | 0.99 | 1.00 | 0.65 | 0.62 | 0.59 | 0.57 | 0.60 |
| AGE 20 – 24 | | | | | | | | | | |
| Asia ^a | 0.99 | 0.98 | 0.99 | 0.98 | 0.98 | 0.43 | 0.42 | 0.41 | 0.38 | 0.37 |
| East Asia ^b | 1.00 | 0.98 | 0.98 | 0.97 | 0.99 | 0.58 | 0.62 | 0.70 | 0.73 | 0.81 |
| Hong Kong | 0.99 | 0.99 | 0.98 | 0.98 | 0.98 | 0.44 | 0.56 | 0.72 | 0.83 | 0.89 |
| Taiwan | 0.97 | 0.98 | 0.99 | 0.95 | 0.90 | 0.15 | 0.29 | 0.45 | 0.57 | 0.68 |
| Southeast Asia ^c | 0.98 | 0.97 | 0.96 | 0.95 | 0.96 | 0.44 | 0.44 | 0.48 | 0.51 | 0.52 |
| Indonesia | 0.99 | 0.97 | 0.96 | 0.94 | 0.96 | 0.27 | 0.28 | 0.34 | 0.35 | 0.39 |
| Philippines | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.63 | 0.55 | 0.55 | 0.58 | 0.62 |
| Thailand | 0.92 | 0.92 | 0.91 | 0.94 | 0.92 | 0.89 | 0.85 | 0.83 | 0.86 | 0.80 |
| South Asia ^d | 0.99 | 0.99 | 0.99 | 0.98 | 0.98 | 0.39 | 0.37 | 0.32 | 0.27 | 0.26 |
| Nepal | 1.00 | 1.00 | 1.00 | 0.99 | 0.95 | 0.55 | 0.53 | 0.51 | 0.49 | 0.46 |

Notes :

^aIncludes countries of b, c, and d below.

^bIncludes Hong Kong, Japan, South Korea, and Taiwan.

^cIncludes Brunei, Indonesia, Malaysia, Myanmar, Philippines, Singapore, and Thailand.

^dIncludes Bangladesh, India, Nepal, Pakistan, and Sri Lanka.

Source:

Xenos, Peter and Midea Kabamalan. 1998. The Social Demography of Asian Youth: A Reconstruction Over 1950–1990 and Projection to 2025. Report for the Project on the Long-Term Transformations of Youth in Asia (Population Council Contract CI97.63A with the East-West Center's Program on Population). Honolulu: East-West Center.

Table 7. Selected Social Components of the Youth Transition for Selected Asian Countries

| Indicator | Hong Kong | Philippines | Taiwan | Thailand | Indonesia | Nepal |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| Date of Peak Growth Rate among Youth | 1960 | 1965 | 1970 | 1970 | 1970 | 1995 |
| Around that date, growth rate – All youth | 7.8 | 3.7 | 3.0 | 3.6 | 3.3 | 3.5 |
| Around that date, growth rate – Single youth | 10.6 | 4.1 | 3.3 | 3.8 | 3.9 | 6.6 |
| Around that date, growth rate – Single and out-of-school youth | -0.9 | 3.8 | 0.1 | 2.8 | 2.0 | 7.7 |
| Date of YARH Survey | 1986 | 1994 | 1995 | 1994 | 1998 | 1998 |
| Growth rate – All youth (previous decade) | -2.7 | 2.1 | 0.4 | 0.2 | 2.2 | 3.5 |
| Growth rate – Single youth (previous decade) | -2.2 | 3.2 | 0.4 | 0.1 | 3.7 | 6.6 |

Source:

Xenos, Peter and Midea Kabamalan. 1998. The Social Demography of Asian Youth: A Reconstruction over 1950–1990 and Projection to 2025. Report for the Project on the Long-Term Transformations of Youth in Asia (Population Council).

Chart 1A

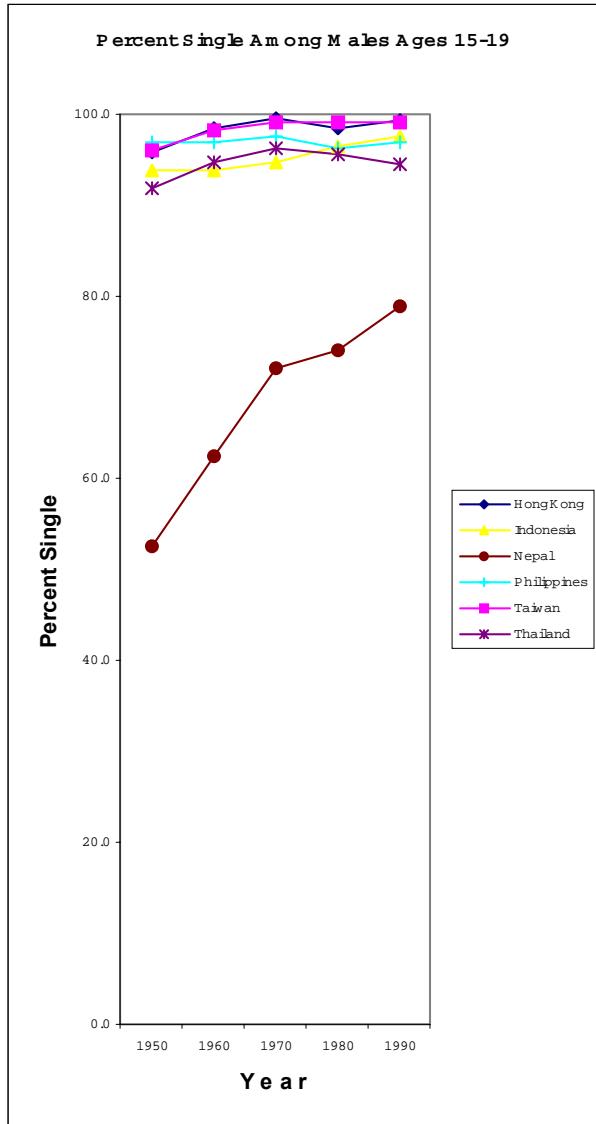


Chart 1B

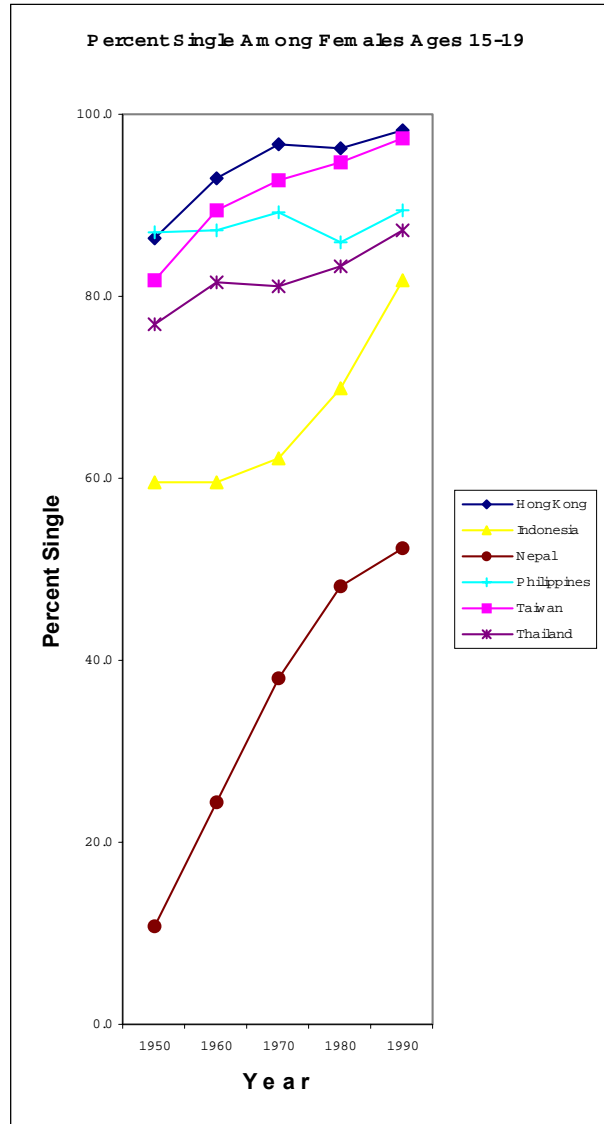


Chart 2A

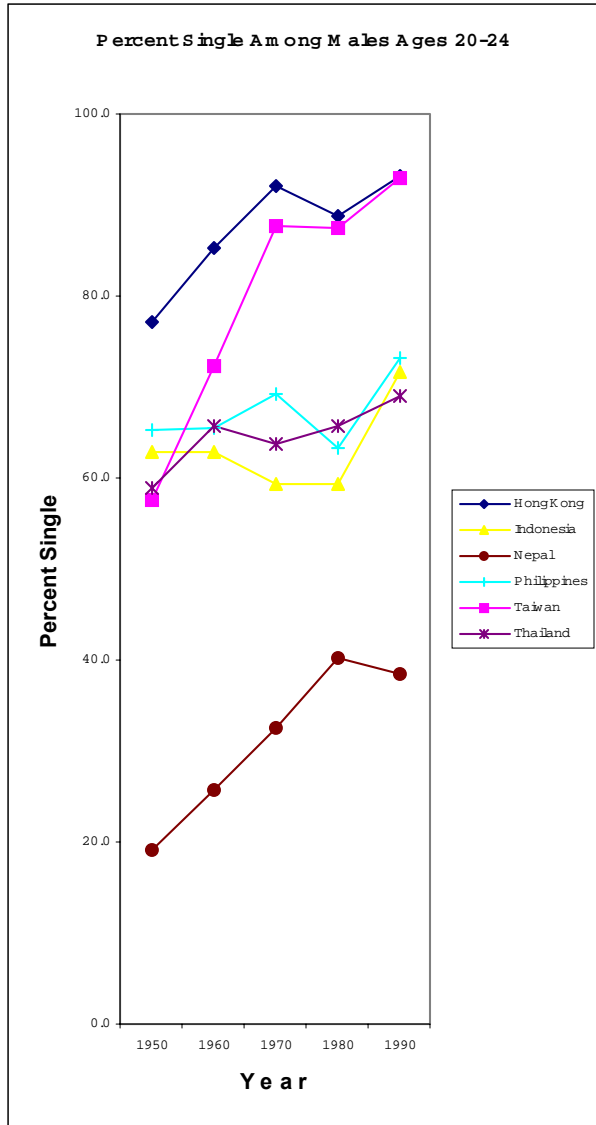


Chart 2B

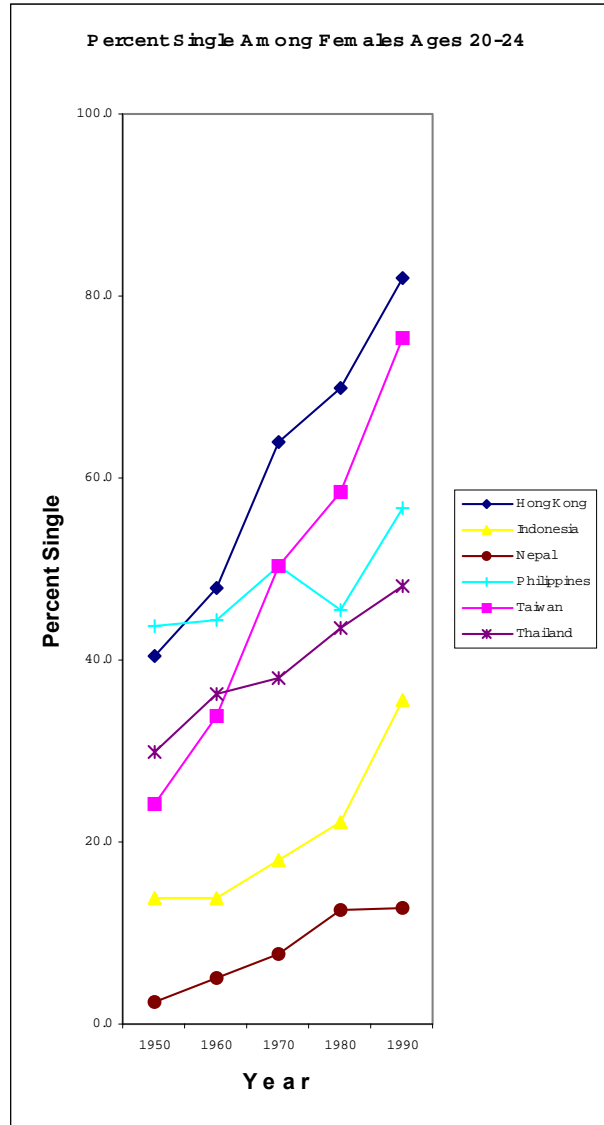


Chart 3A

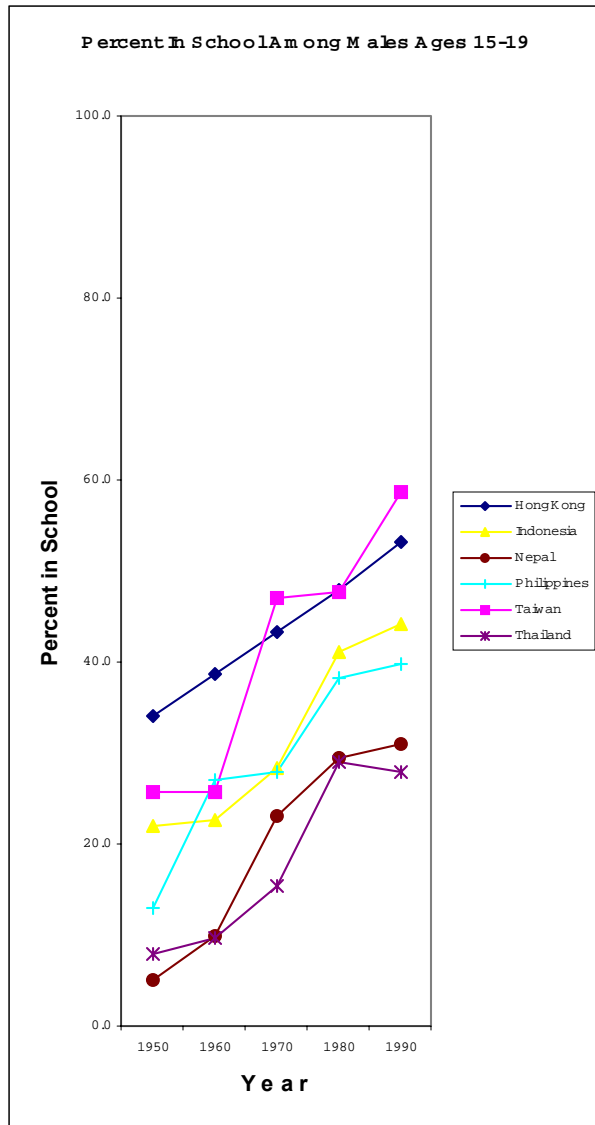


Chart 3B

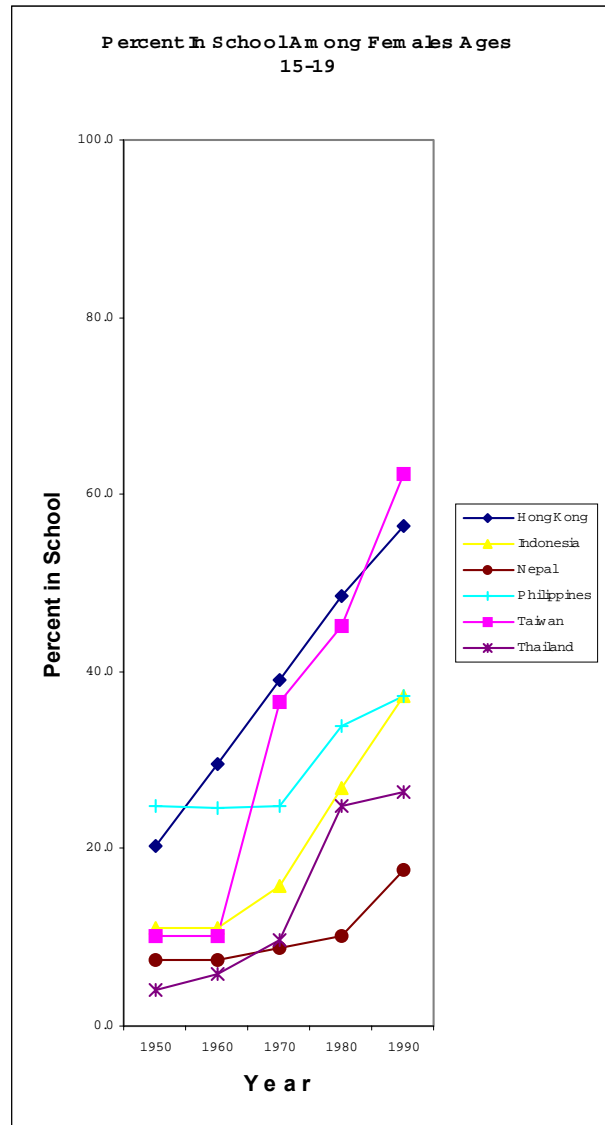


Chart 4A

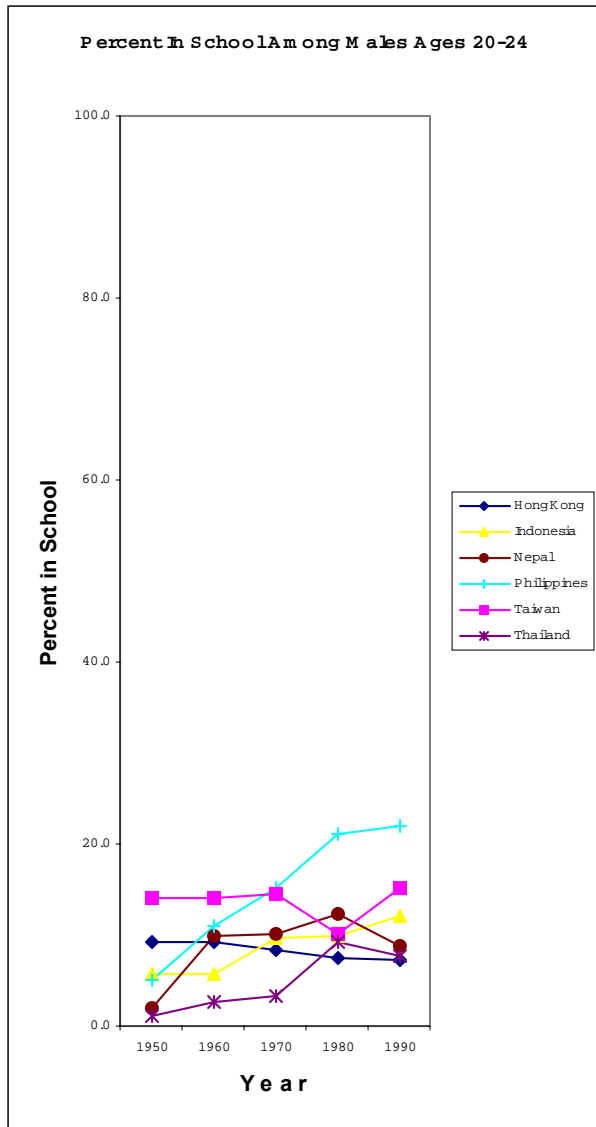


Chart 4B

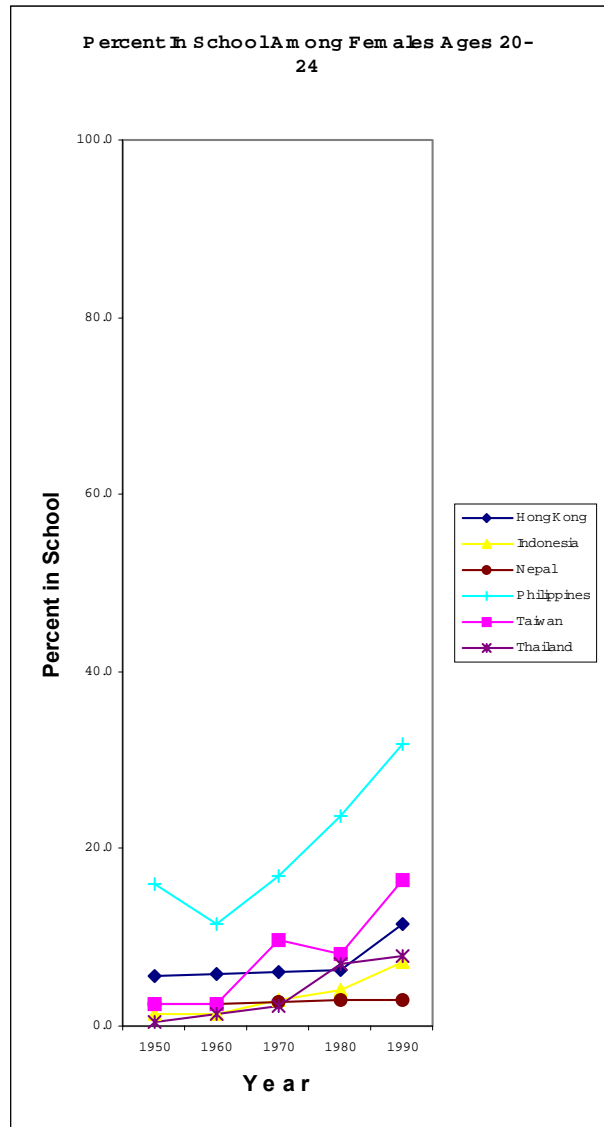


Chart 5A

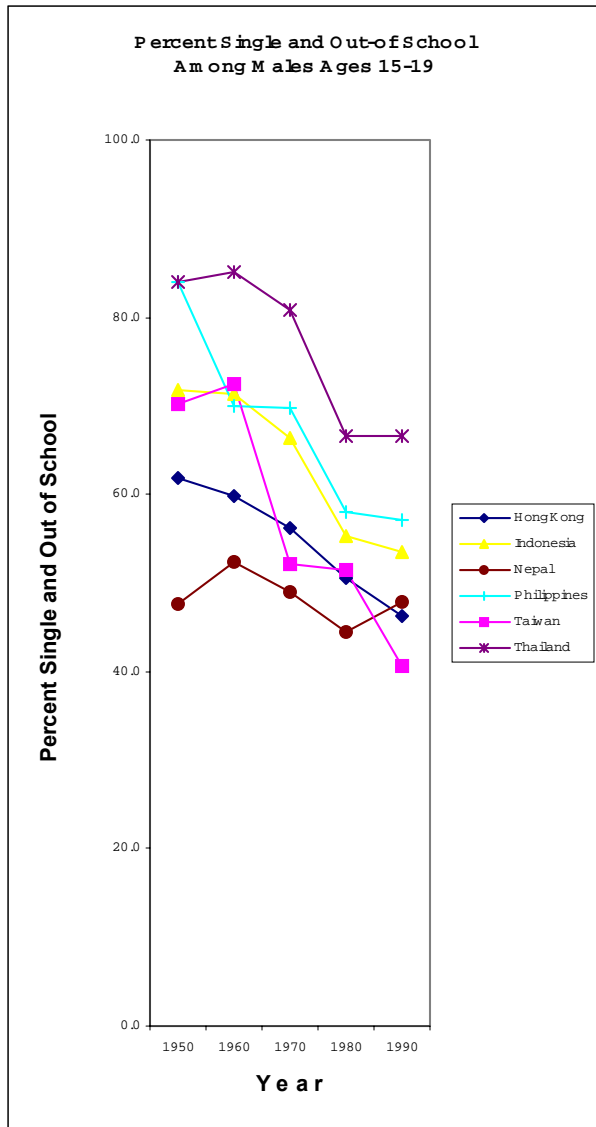


Chart 5B

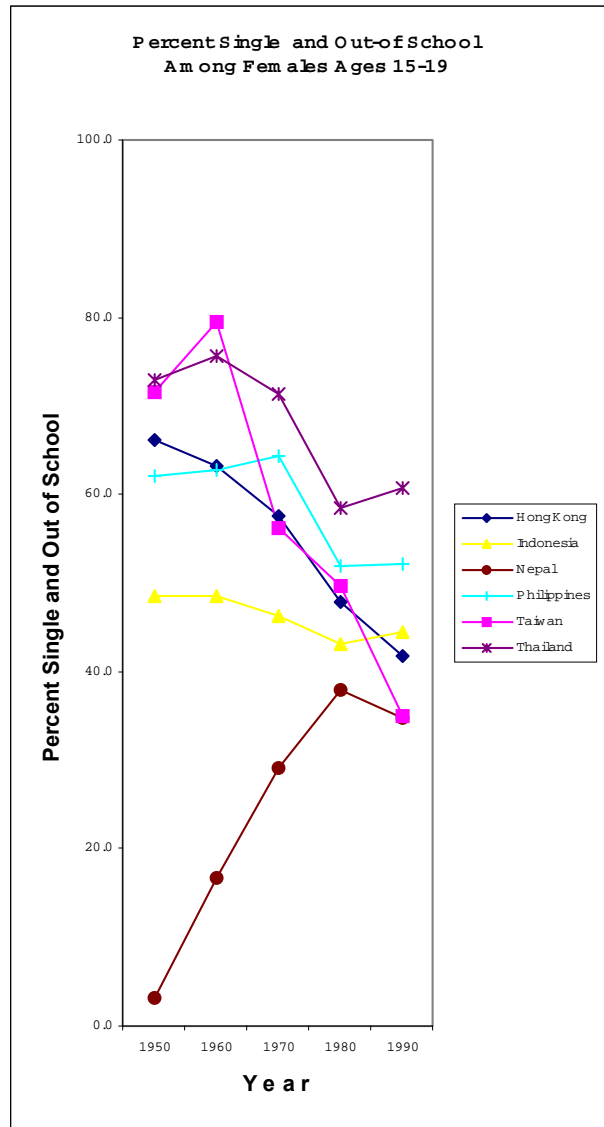


Chart 6A

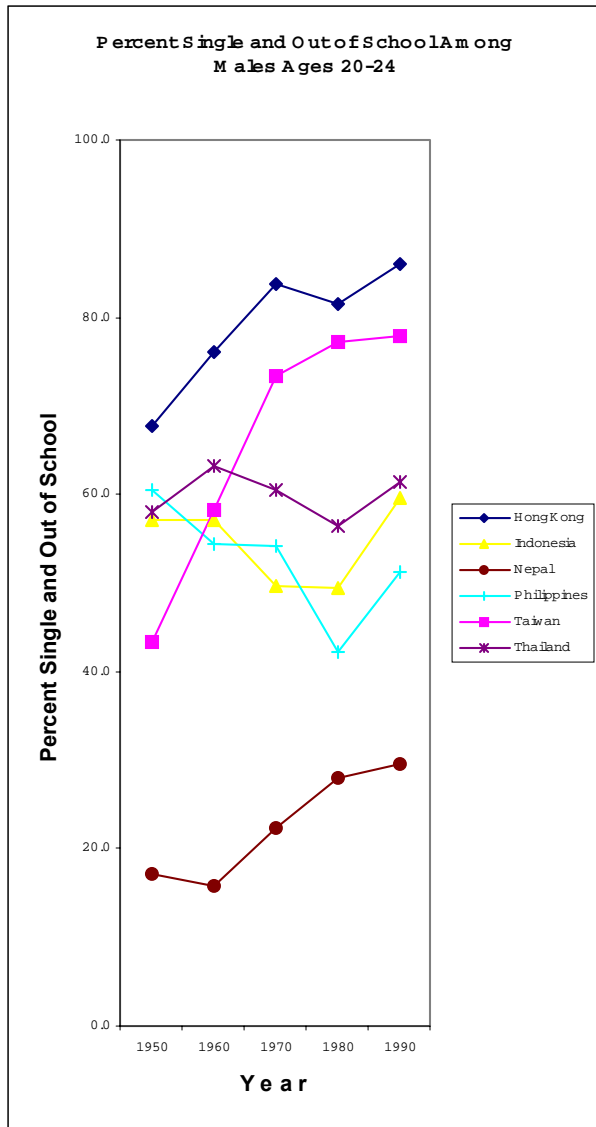


Chart 6B

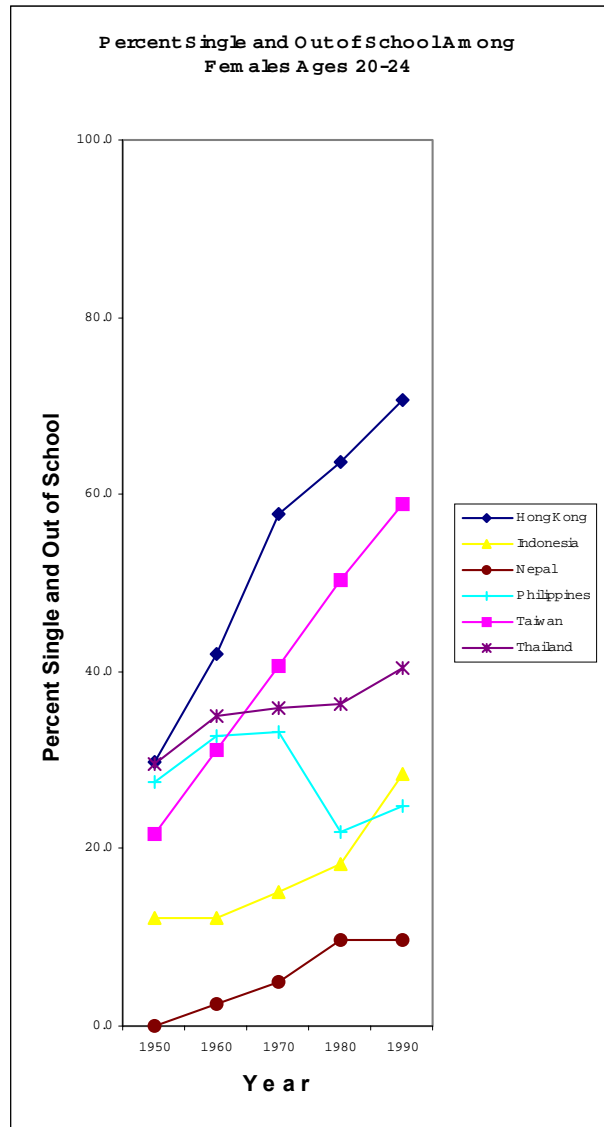


Chart 7A

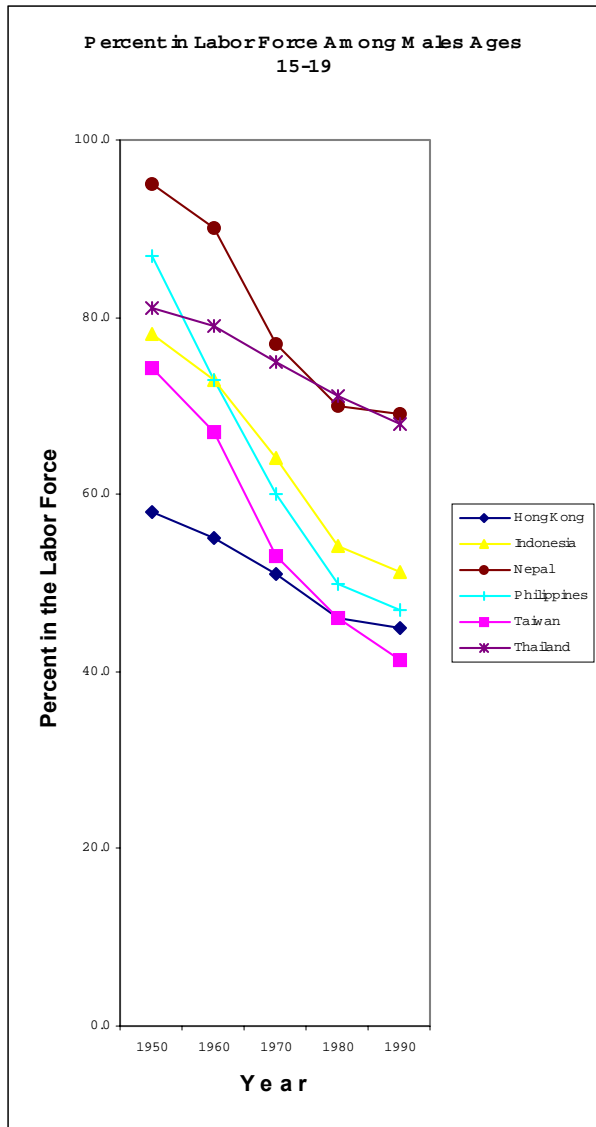


Chart 7B

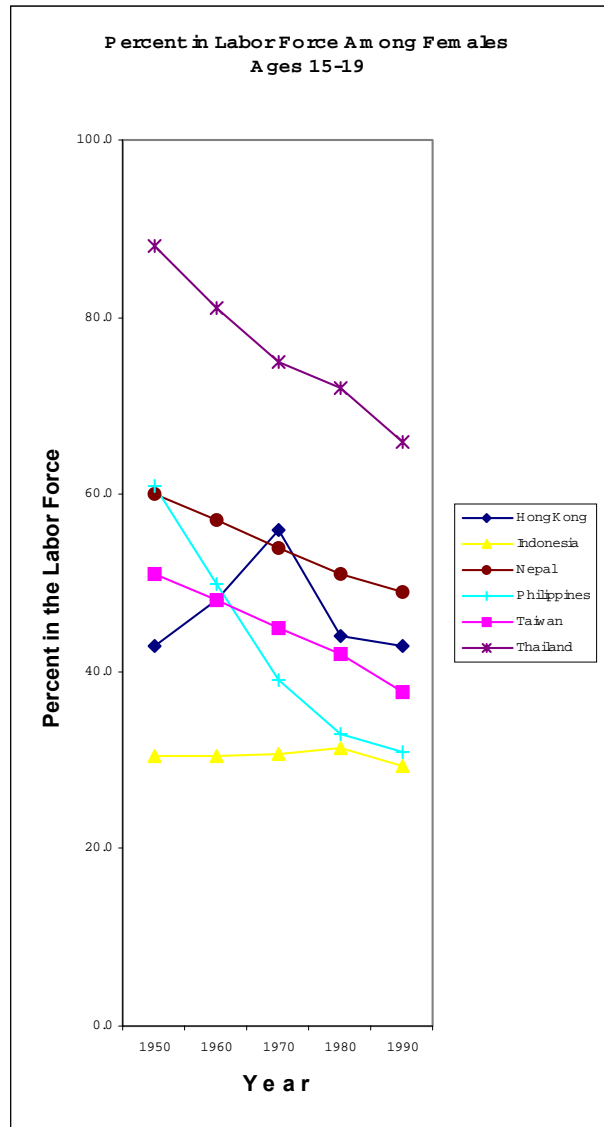


Chart 8A

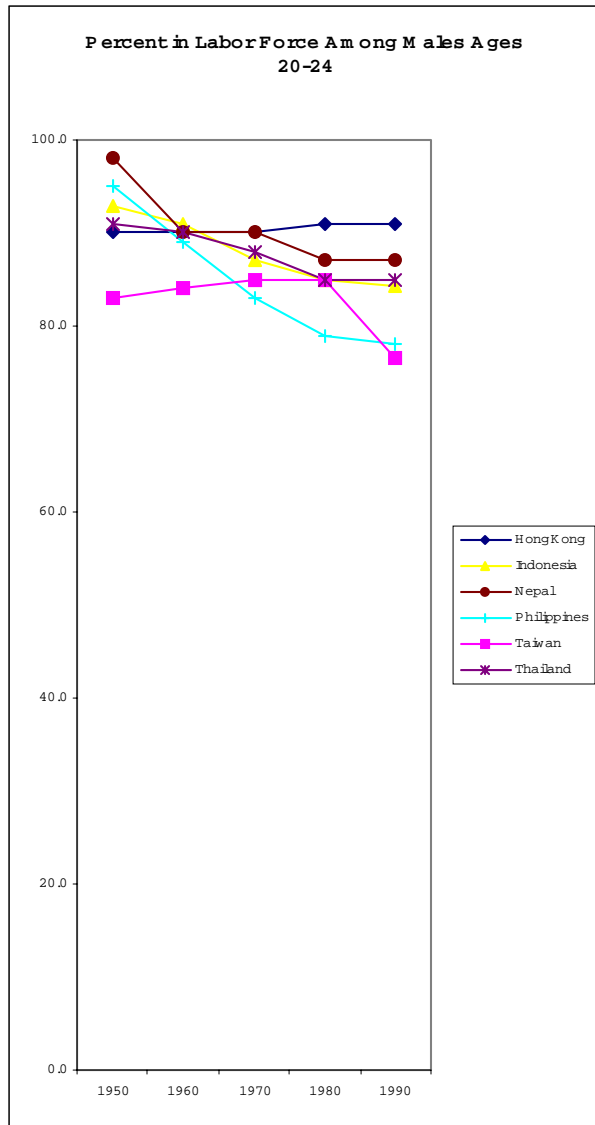


Chart 8B

